ATTACHMENT B1		
Section	**Change**	**Explanation of Change**
Attachment B1	Changed EPA hazardous waste "code" to EPA hazardous waste "number."	Modified for consistency with NMAC language.
Attachment B1	Changed "characterization" to "waste analysis"	Modified for consistency with NMAC language.
Attachment B1	Provided corrected references throughout due to formatting changes.	Corrected formatting.
Attachment B1	Modified titles, figures, and page numbers to reflect modification made in the PMR.	Corrected formatting.
Table of Contents	Modified table of contents to reflect changes (additions/deletions) to the current titles in the HWFP.	Editorial
Introduction	The Permittees will require generator/storage sites (**sites**) to use the following methods, as applicable, for ~~characterization~~ waste analysis of TRU mixed waste which is managed, stored, or disposed at WIPP. These methods include requirements for headspace-gas sampling and, sampling of homogeneous solids and soil**s**/gravel~~, and radiography~~. Additionally, this Attachment provides quality control, sample custody, and sample packing and shipping requirements.	Acknowledged methods generator/storage sites may use in performing waste analysis. Removed radiography as a method that must be performed IAW HWFP methods. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.

Section	Change	Explanation of Change
B1-1	~~Headspace Gas Sampling~~ Sampling of Debris Waste (Summary Category S5000) Headspace gas sampling and analysis shall be used to resolve the assignment of Environmental Protection Agency (**EPA**) hazardous waste numbers to debris waste streams.	Clarified that representative HSGSA is required for resolution of EPA hazardous waste numbers for debris waste streams. The justification for this change is provided in Section 1.2.1. of the revised PMR and Appendix I of the Section 311 NOD Comment/Response Matrix.

Section	Change	Explanation of Change
B1-1a	~~B1-1a(1) Summary Category S5000 Requirements~~ ~~With the exception of qualifying LANL sealed sources waste containers, all waste containers or r~~ For those waste streams without an AK Sufficiency Determination approved by NMED or for which the Permittees have not requested approval of an AK Sufficiency Determination, containers shall be randomly selected ~~containers~~ from waste streams ~~that meet the conditions for reduced headspace gas sampling listed in Permit Attachment B, Section B-3a(1),~~ designated as summary category S5000 (Debris waste) and shall be categorized under one of the sampling scenarios shown in Table B1-5 and depicted in Figure B1-1. ~~The LANL sealed sources waste containers that meet specified conditions must be assigned VOC concentration values in accordance with Section B-3a(1)(iii).~~	Clarified that representative HSGSA is required for resolution of EPA hazardous waste numbers for debris waste streams without an AK Sufficiency Determination approved by NMED or for which the Permittees have not requested approval of an AK Sufficiency Determination. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-1a	~~B1-1a(2) Summary Category S3000/S4000 Requirements~~ ~~All waste containers or randomly selected containers from waste streams that meet the conditions for reduced headspace gas sampling listed in Permit Attachment B, Section B-3a(1), designated as summary categories S3000 (Homogeneous solids) and S4000 (Soil/gravel) shall be categorized under one of the sampling scenarios shown in Table B1-5 and depicted in Figure B1-1. If the container is categorized under Scenario 1, the applicable DAC from Table B1-6 must be met prior to headspace gas sampling. If the container is categorized under Scenario 2, the applicable Scenario 1 DAC from Table B1-6 must be met prior to venting the container and then the applicable Scenario 2 DAC from Table B1-7 must be met after venting the container. The DAC for Scenario 2 containers that contain filters or rigid liner vent holes other than those listed in Table B1-7 shall be determined using footnotes "a" and "b" in Table B1-7.~~	Removed requirement that homogeneous solids and soils/gravel undergo HSGSA. Under the revised PMR, representative SSA is required to resolve assignment of EPA HWNs for homogeneous solids and soils/gravel waste streams without an AK Sufficiency Determination approved by NMED or for which the Permittees have not requested approval of an AK Sufficiency Determination. The justification for this change is provided in Sections 1.2.1 and 1.2.2. of the revised PMR and Appendix I of the Section 311 NOD Comment/Response Matrix.
B1-1a	~~Containers that have not met the Scenario 1 DAC at the time of venting must be categorized under Scenario 3. Containers categorized under Scenario 3 must be placed into one of the Packaging Configuration Groups listed in Table B1-8. If a specific packaging configuration cannot be determined based on the data collected during packaging and/or repackaging (Attachment B, Section B-3(d)1, a conservative default Packaging Configuration Group of 3 for 55-gallon drums, 6 for SWBs and TDOPs, and 8 for 85-gallon and 100-gallon drums must be assigned, provided the drums do not contain pipe component packaging. If a container is designated as Packaging Configuration Group 4 (i.e., a pipe component), the headspace gas sample must be taken from the pipe component headspace. Drums, TDOPs, or SWBs that contain compacted 55-gallon drums containing a rigid liner may not be disposed of under any packaging configuration.~~	Removed requirement that homogeneous solids and soils/gravel undergo HSGSA. Under the revised PMR, representative SSA is required to resolve assignment of EPA HWNs for homogeneous solids and soils/gravel waste streams without an AK Sufficiency Determination approved by NMED or for which the Permittees have not requested approval of an AK Sufficiency Determination. The justification for this change is provided in Sections 1.2.1 and 1.2.2. of the revised PMR and Appendix I of the Section 311 NOD Comment/Response Matrix.

Section	Change	Explanation of Change
B1-1a	~~The DAC for Scenario 3 containers that contain filters that are either undocumented or are other than those listed in Table B1-10 shall be determined using footnote 'a' in Table B1-10. Each of the Scenario 3 containers shall be sampled after waiting the DAC in Table B1-10 based on its packaging configuration (note: Packaging Configuration Groups 4, 5, 6, 7, and 8 are not summary category group dependent, and 85-gallon drum, 100-gallon drum, SWB, and TDOP requirements apply when the 85-gallon drum, 100-gallon drum, SWB, or TDOP is used for the direct loading of waste).~~	Removed requirement that homogeneous solids and soils/gravel undergo HSGSA. Under the revised PMR, representative SSA is required to resolve assignment of EPA HWNs for homogeneous solids and soils/gravel waste streams without an AK Sufficiency Determination approved by NMED or for which the Permittees have not requested approval of an AK Sufficiency Determination. The justification for this change is provided in Sections 1.2.1 and 1.2.2. of the revised PMR and Appendix I of the Section 311 NOD Comment/Response Matrix.
B1-1a(1)	Consistent with footnote "a" in Table B1-8, any waste container selected for headspace gas sampling that cannot be assigned a packaging configuration specified in Table B1-8 shall ~~not~~ be ~~shipped to or accepted for disposal at WIPP~~ assigned a conservative default packaging configuration.	Editorial to clarify that conservative default packaging configurations may be assigned for containers selected for HSGSA that cannot be assigned a specified configuration.
B1-1a(1)	Drum age criteria for all other container types must be established through permit modification prior to ~~acceptance of these containers at WIPP~~ performing headspace gas sampling. ~~U.S. Environmental Protection Agency (~~**~~EPA)~~** in the Compendium ... using ~~Summa~~ SUMMA® Passivated Canister Sampling and Gas Chromatography Analysis (EPA 1988) or by using on-line integrated sampling/analysis systems.	Editorial to clarify that DACs must be approved through permit modification prior to generator/storage sites performing HSGSA.
B1-1a(~~1~~2)	The manifold shall also be equipped with a purge assembly that allows applicable QC samples to be collected through all sampling components that may affect compliance with the quality assurance objectives (QAO²s).	Editorial.
B1-1b(3)	For the direct canister method, field reference standard collection may be discontinued if the field reference standard results demonstrate the ~~quality assurance objectives (~~**~~QAO)~~** for accuracy specified in Appendix B3.	Editorial

Section	Change	Explanation of Change
B1-2	Sampling of Homogeneous Solids and Soil/Gravel (Summary Categories S3000/S4000) For those waste streams without an AK Sufficiency Determination approved by NMED or for which the Permittees have not requested approval of an AK Sufficiency Determination, randomly selected containers of homogeneous solid and/or soil/gravel waste streams (S3000/S4000) shall be sampled and analyzed to resolve the assignment of EPA hazardous waste numbers. For example, analytical results may be useful to resolve uncertainty regarding hazardous constituents used in a process that generated the waste stream when the hazardous constituents are not documented in the acceptable knowledge information for the waste.	Clarified when homogeneous solids and soils/gravel must undergo SSA. The justification for this change is provided in Section 1.2.1. of the revised PMR.
B1-3	~~B1-3 Radiography~~	The method requirements for radiography now apply to Permittee waste examination activities and are described in Section B7-1b(5). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3a	~~B1-3a Methods Requirements~~ ~~Radiography has been developed by the Permittees specifically to aid in the examination and identification of containerized waste. The Permittees shall require that sites describe all activities required to achieve the radiography objectives in site QAPjPs and SOPs. These SOPs should include instructions specific to the radiography system(s) used at the site. For example, to detect liquids, some systems require the container to be rotated back and forth while other systems require the container to be tilted.~~	The method requirements for radiography now apply to Permittee waste examination activities and are described in Section B7-1b(5). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.

Section	Change	Explanation of Change
B1-3a	~~A radiography system (e.g., real time radiography, digital radiography/computed tomography) normally consists of an X-ray-producing device, an imaging system, an enclosure for radiation protection, a waste container handling system, an audio/video recording system, and an operator control and data acquisition station. Although these six components are required, it is expected there will be some variation within a given component between sites . The radiography system shall have controls or an equivalent process which allow the operator to control image quality. On some radiography systems, it should be possible to vary the voltage, typically between 150 to 400 kilovolts (kV), to provide an optimum degree of penetration through the waste. For example, high-density material should be examined with the X-ray device set on the maximum voltage. This ensures maximum penetration through the waste container. Low-density material should be examined at lower voltage settings to improve contrast and image definition.~~	The method requirements for radiography now apply to Permittee waste examination activities and are described in Section B7-1b(5). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3a	~~The imaging system typically utilizes either a fluorescent screen and a low-light television camera or x-ray detectors to generate the image.~~ ~~To perform radiography, the waste container is scanned while the operator views the television screen. A n audio/ video tape or equivalently non-alterable media is made of the waste container scan and is maintained as a non-permanent record. A radiography data form is also used to document the Waste Matrix Code and estimated waste material parameter weights of the waste. The estimated waste material parameter and weights should be determined by compiling an inventory of waste items, residual materials, and packaging materials. The items on this inventory should be sorted by waste material parameter and combined with a standard weight look-up table to provide an estimate of waste material parameter weights.~~	The method requirements for radiography now apply to Permittee waste examination activities and are described in Section B7-1b(5). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3a	~~Containers whose contents prevent full examination of the remaining contents shall be subject to visual examination unless the site certifies that visual examination would provide no additional relevant information for that container~~ ~~For containers which contain classified shapes and undergo radiography, the radiographytape will be considered classified. The radiography data forms will not be considered classified.~~	The method requirements for radiography now apply to Permittee waste examination activities and are described in Section B7-1b(5). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.

Section	Change	Explanation of Change
B1-3b	~~B1-3b Quality Control~~	The method requirements for radiography now apply to Permittee waste examination activities and are described in Section B7-1b(5). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3b	~~The radiography system involves qualitative and semiquantitative evaluations of visual displays. Operator training and experience are the most important considerations for assuring quality controls in regard to the operation of the radiography system and for interpretation and disposition of radiography results. Only trained personnel shall be allowed to operate radiography equipment.~~ ~~Standardized training requirements for radiography operators shall be based upon existing industry standard training requirements and shall comply with the training and qualification requirements stipulated in this WAP.~~	The method requirements for radiography now apply to Permittee waste examination activities and are described in Section B7-1b(5). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3b	~~The Permittees shall require each site to develop a training program that provides radiography operators with both formal and on-the-job (OJT) training. Radiography operators shall be instructed in the specific waste generating practices, typical packaging configurations, and associated waste material parameters expected to be found in each Waste Matrix Code at the site. The OJT and apprenticeship shall be conducted by an experienced, qualified radiography operator prior to qualification of the training candidate. The training programs will be site-specific due to differences in equipment, waste configurations, and the level of waste characterization efforts. For example, certain sites use digital radiography equipment, which is more sensitive than real-time radiography equipment. In addition, the particular physical forms and packaging configurations at each site will vary; therefore, radiography perators shall be trained on the types of waste that are generated, stored, and/or characterized at that particular site.~~	The method requirements for radiography now apply to Permittee waste examination activities and are described in Section B7-1b(5). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.

Section	Change	Explanation of Change
B1-3b	~~Although the Permittees shall require each site to develop its own training program, all of the radiography QC requirements specified in this Waste Analysis Plan (WAP) shall be incorporated into the training programs and radiography operations. In this way data quality and comparability will not be affected.~~ ~~R adiography training programs will be the subject of the Permittees' Audit and Surveillance Program (Permit Attachment B6).~~ ~~Although the site-specific training programs will vary to some degree, the Permittees shall require each site's program to contain the following required elements based on the following requirements:~~	The method requirements for radiography now apply to Permittee waste examination activities and are described in Section B7-1b(5). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3b(1)	~~B1-3b(1) Formal Training~~	The method requirements for radiography training now apply to Permittee waste examination activities and are described in Section B7-1b(5)(i). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3b(1)	~~• Project Requirements~~ ~~• State and Federal Regulations~~ ~~• Basic Principles of Radiography~~ ~~• Radiographic Image Quality~~ ~~• Radiographic Scanning Techniques~~ ~~• Application Techniques~~ ~~• Radiography of Waste Forms~~ ~~• Standards, Codes, and Procedures for Radiography~~ ~~• Site Specific Instruction~~	The method requirements for radiography training now apply to Permittee waste examination activities and are described in Section B7-1b(5)(i). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3b(2)	~~B1-3b(2) On-the-Job Training~~	The method requirements for radiography training now apply to Permittee waste examination activities and are described in Section B7-1b(5)(i). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.

Section	Change	Explanation of Change
B1-3b(2)	~~• System Operation~~ ~~• Identification of Packaging Configurations~~ ~~• Identification of Waste Material Parameters~~ ~~• Weight and Volume Estimation~~ ~~• Identification of Prohibited Items~~	The method requirements for radiography training now apply to Permittee waste examination activities and are described in Section B7-1b(5)(i). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3b(2)	~~A radiography test drum shall include items common to the waste streams to be generated/stored at the generator/storage site. The test drums shall be divided into layers with varying packing densities or different drums may be used to represent different situations that may occur during radiography examination at the site. Test drums representative of the waste matrix codes for which Waste Stream Profile Form approval is sought must be examined and successfully identified prior to waste stream shipment. The following is a list of required elements of a radiography test drum(s):~~	The method requirements for radiography training now apply to Permittee waste examination activities and are described in Section B7-1b(5)(i). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3b(2)	~~• Aerosol can with puncture~~ ~~• Horsetail bag~~ ~~• Pair of coveralls~~ ~~• Empty bottle~~ ~~• Irregular shaped pieces of wood~~ ~~• Empty one gallon paint can~~ ~~• Full container~~ ~~• Aerosol can with fluid~~ ~~• One gallon bottle with three tablespoons of fluid~~ ~~• One gallon bottle with one cup of fluid (upside down)~~ ~~• Leaded glove or leaded apron~~ ~~• Wrench~~	The method requirements for radiography training now apply to Permittee waste examination activities and are described in Section B7-1b(5)(i). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3b(2)	~~These items shall be successfully identified by the operator as part of the qualification process. Qualification of radiography operators shall, at a minimum, encompass the following requirements:~~ ~~• Successfully pass a comprehensive exam based upon training enabling objectives. This exam will be reviewed as part of the Permittees' Audit and Surveillance Program (Permit Attachment B6). The comprehensive exam will address all of the Radiography operation, documentation, characterization, and procedural elements stipulated in this WAP.~~	The method requirements for radiography training now apply to Permittee waste examination activities and are described in Section B7-1b(5)(i). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.

Section	Change	Explanation of Change
B1-3b(2)	• ~~Perform practical capability demonstration in the presence of appointed site radiography subject matter expert. This person is an experienced radiography operator who is qualified as an OJT trainer.~~ ~~Requalification of operators shall be based upon evidence of continued satisfactory performance (primarily audio/ video tape reviews) and shall be done at least every two years. Unsatisfactory performance will result in disqualification. Unsatisfactory performance is defined as the misidentification of prohibited item in a training drum or a score of less than 80% on the comprehensive exam. Retraining and demonstration of satisfactory performance are required before a disqualified operator is again allowed to operate the radiography system.~~	The method requirements for radiography training now apply to Permittee waste examination activities and are described in Section B7-1b(5)(i). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3b(2)	~~A training drum with internal container of various sizes shall be scanned biannually by each operator. The audio/videotape or equivalent media shall then be reviewed by a supervisor to ensure that operators' interpretations remain consistent and accurate. Imaging system characteristics shall be verified on a routine basis.~~ ~~Independent replicate scans and replicate observations of the video output of the radiography process shall be performed under uniform conditions and procedures. Independent replicate scans shall be performed on one waste container per day or once per testing batch, whichever is less frequent. Independent observations of one scan (not the replicate scan) shall also be made once per day or once per testing batch, whichever is less frequent, by a qualified radiography operator other than the individual who performed the first examination. A testing batch is a suite of waste containers undergoing radiography using the same testing equipment. A testing batch can be up to 20 waste containers without regard to waste matrix~~	The method requirements for radiography training now apply to Permittee waste examination activities and are described in Section B7-1b(5)(i). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3b(2)	~~Oversight functions include periodic audio/video tape reviews of accepted waste containers and shall be performed by qualified radiography personnel other than the operator who dispositioned the waste container. The results of this independent verification shall be available to the radiography operator. The Permittees shall require the site project QA officer to be responsible for monitoring the quality of the radiography data and calling for corrective action, when necessary.~~	The method requirements for radiography oversight now apply to Permittee waste examination activities and are described in Section B7-1b(5)(i)(ii). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.

Section	Change	Explanation of Change
B1-3~~b(3)~~	B1-3 ~~b(3)~~ Visual Examination Certain waste streams may not be amenable to radiography as a waste examination method by the Permittees prior to storage and disposal at WIPP. For these waste streams, the Permittees may review visual examination data produced by the generator/storage sites to perform waste examination. If the Permittees use generator/storage site visual examination data for purposes of waste examination, the Permittees will verify, through the Permittees audit and surveillance program, that the generator/storage site procedures meet the requirements of this section.	This method requirement now applies when the generator/storage sites produce VE records that the Permittees will use to perform waste examination in Permit Attachment B7. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3~~b(3)~~	Visual examination may be performed using two approaches. The visual examination may be recorded on video/audio media, or alternatively, a second operator may provide additional verification by reviewing the contents of the waste container to assure correct reporting. This Section describes the minimum requirements for generator/storage site visual examination for the Permittees to use the resulting data for waste examination purposes.	This method requirement now applies when the generator/storage sites produce VE records that the Permittees will use to perform waste examination in Permit Attachment B7. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3~~(3)~~	Visual examination recorded on video/audio media shall meet the following minimum requirements: • The video/audio media shall record the waste packaging event for the container such that all waste items placed into the container are recorded in sufficient detail that a trained Permittee visual examination expert can determine what the waste items are and their associated waste material parameter.	This method requirement now applies when the generator/storage sites produce VE records that the Permittees will use to perform waste examination in Permit Attachment B7. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3~~(3)~~	• The video/audio media shall capture the waste container identification number. • The personnel loading the waste container shall be identified on the video/audio media or on packaging records traceable to the loading of the waste container.	This method requirement now applies when the generator/storage sites produce VE records that the Permittees will use to perform waste examination in Permit Attachment B7. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3~~(3)~~	• The date of loading of the waste container will be recorded on the video/audio media or on packaging records traceable to the loading of the waste container. Visual examination performed using two generator site personnel shall meet the following minimum requirements:	This method requirement now applies when the generator/storage sites produce VE records that the Permittees will use to perform waste examination in Permit Attachment B7. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.

Section	Change	Explanation of Change
B1-3~~(3)~~	• At least two generator site personnel shall approve the data forms or packaging logs attesting to the contents of the waste container. • The data forms or packaging logs shall contain an inventory of waste items in sufficient detail that a trained Permittee visual examination expert can identify the associated waste material parameters.	This method requirement now applies when the generator/storage sites produce VE records that the Permittees will use to perform waste examination in Permit Attachment B7. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3~~(3)~~	• The waste container identification number shall be recorded on the data forms or packaging logs. There are no data review requirements specified for the generator/storage site visual examination method. When used as data for waste examination purposes by the Permittees, the Permittees will perform the data review required by Permit Attachment B7.	This method requirement now applies when the generator/storage sites produce VE records that the Permittees will use to perform waste examination in Permit Attachment B7. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3~~(3)~~	~~As an additional QC check, or in lieu of the waste container contents shall be verified directly by visual examination of the waste container contents Visual examination shall be performed on a statistically determined portion of waste containers to verify the results of radiography. With the exception of items or conditions that could pose a hazard to visual examination personnel, the radiography results shall not be made available until after the visual examination is completed. This verification shall include the Waste Matrix Code and waste material parameter weights. The verification shall be performed through a comparison of radiography and visual examination results. The Waste Matrix Code is determined and waste material parameter weights are estimated to verify that the container is properly included in the appropriate waste stream. The results of the visual examination shall be transmitted to the radiography facility.~~	The method requirements for VE now apply to Permittee waste examination activities and are described in Section B7-1b(6). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.

Section	Change	Explanation of Change
B1-3~~(3)~~	~~Visual examination shall be conducted to describe all contents of a waste container, and includes estimated or measured weights of the contents. The description shall clearly identify all discernible waste items, residual materials, packaging materials, or waste material parameters. Visual examination experts who are experienced and trained shall assess the need to open individual bags or packages of waste. If individual bags/packages are not opened, estimated weights shall be recorded. Estimated weights shall be established through the use of historically derived waste weight tables and an estimation of the waste volumes. It may not be possible to see through inner bags because of discoloration, dust, or because inner containers are sealed. In these instances, documented acceptable knowledge may be used to identify the Waste Matrix Code and estimated waste material parameter weights.~~	The method requirements for VE now apply to Permittee waste examination activities and are described in Section B7-1b(6). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3~~(3)~~	~~If acceptable knowledge is insufficient for individual bags/packages, actual weights of waste items, residual materials, packaging materials, or waste material parameters shall be recorded. All visual examination activities shall be documented on video/audio tape and the results of all visual examination shall be documented on visual examination data forms.~~ ~~Visual examination video tapes of containers which contain classified shapes shall be considered classified information. Visual examination data forms will not be considered classified information.~~	The method requirements for VE now apply to Permittee waste examination activities and are described in Section B7-1b(6). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3~~(3)~~	~~The visual examination shall consist of a semi-quantitative and/or qualitative evaluation of the waste container contents, and shall be recorded on audio/videotape. The visual examination program has been developed by the Permittees to provide an acceptable level of confidence in radiography. There is no equivalent method found in EPA sampling and analysis guidance documents. The specific requirements of visual examination are described in this WAP.~~	The method requirements for VE now apply to Permittee waste examination activities and are described in Section B7-1b(6). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.

Section	Change	Explanation of Change
B1-3~~(3)~~	~~Standardized training for visual inspection shall be developed to include both formal classroom training and OJT. Visual inspectors shall be instructed in the specific waste generating processes, typical packaging configurations, and expected waste material parameters expected to be found in each Waste Matrix Code at the site. The OJT and apprenticeship shall be conducted by an operator experienced and qualified in visual examination prior to qualification of the candidate. The training shall be site specific to include the various waste configurations generated/stored at the site. For example, the particular physical forms and packaging configurations at each site will vary so operators shall be trained on types of waste that are generated, stored, and/or characterized at that particular site. Visual examination personnel shall be requalified once every two years.~~	The method requirements for VE now apply to Permittee waste examination activities and are described in Section B7-1b(6). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3~~(3)~~	~~Although site-specific training programs will vary to some degree, the Permittees shall require each site's program to contain the following required elements:~~	The method requirements for VE now apply to Permittee waste examination activities and are described in Section B7-1b(6). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3(4)	~~B1-3b(4) Formal Training~~	The method requirements for VE training now apply to Permittee waste examination activities and are described in Section B7-1b(6)(i). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3(4)	~~• Project Requirements • State and Federal Regulations • Application Techniques • Site-Specific Instruction~~	The method requirements for VE training now apply to Permittee waste examination activities and are described in Section B7-1b(6)(i). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3(5)	~~B1-3b(5) On-the-Job Training~~	The method requirements for VE training now apply to Permittee waste examination activities and are described in Section B7-1b(6)(i). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3(5)	~~• Identification of Packaging Configurations • Identification of Waste Material Parameters • Weight and Volume Estimation • Identification of Prohibited Items~~	The method requirements for VE training now apply to Permittee waste examination activities and are described in Section B7-1b(6)(i). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.

Section	Change	Explanation of Change
B1-3(5)	~~Each visual examination facility shall designate a visual examination expert. The visual examination expert shall be familiar with the waste generating processes that have taken place at that site and also be familiar with all of the types of waste being characterized at that site. The visual examination expert shall be responsible for the overall direction and implementation of the visual examination at that facility. The Permittees shall require site QAPjPs to specify the selection, qualification, and training requirements of the visual exam~~	The method requirements for VE oversight now apply to Permittee waste examination activities and are described in Section B7-1b(6)(i)(ii). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3(5)	~~Figure B1-7 illustrates the overall programmatic approach to the visual examination of waste. If the waste is homogeneous, the expert may decide that a limited visual examination involving a confirmation of the radiography data is appropriate. If the waste is heterogeneous, the expert may decide a full visual examination by opening bags and segregating waste is warranted. Various degrees of segregation are possible based on the expert's judgment and availability of acceptable knowledge data. Site QAPjPs shall specify decision-making criteria for the visual examination expert. In all cases, SOPs shall be developed to support the visual examination process, and the basis for the expert's decisions shall be documented.~~	The method requirements for VE oversight now apply to Permittee waste examination activities and are described in Section B7-1b(6)(i)(ii). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-3(5)	~~A description of the waste container contents shall be recorded on a data form as implemented in the site QAPjP. The description shall clearly identify all waste material parameters and provide enough information to estimate weights of waste material parameters. In cases where bags are not opened, a brief written description of the contents of the bags shall contain an estimate of the amount of each waste type in the bags. The written records of visual examination shall be supplemented with the audio/video recording.~~	The method requirements for VE oversight now apply to Permittee waste examination activities and are described in Section B7-1b(6)(i)(ii). The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
Table B1-4	~~Polychlorinated Biphenyls (PCBs)[f] 50 grams Cool to 4ºC Glass Jar[r] 14 Days Prep/ 40 Days Analyze[ff]~~	Corrected NMED oversight.
Table B1-6	~~S3000/S4000~~ ~~127~~	HSSGA is no longer performed on homogeneous solids and soils/gravel. DAC no longer required.
Table B1-7 Scenario 2 DAC (in days) Matrix	~~Summary Category Group S3000/S4000~~	Removed DAC scenario for homogeneous solids and soils/gravels because HSGSA is not required to resolve assignment of EPA hazardous waste numbers for homogeneous solids and soils/gravels . The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.

Section	Change	Explanation of Change
Table B1-7 Scenario 2 DAC (in days) Matrix	~~Rigid Liner Vent Hole Diameter (in)~~	Removed DAC scenario for homogeneous solids and soils/gravels. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
Table B1-7 Scenario 2 DAC (in days) Matrix	Delete all numbers under Summary Category Group S3000/S4000	Removed DAC scenario for homogeneous solids and soils/gravels. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
Table B1-8	~~**Covered S3000/S4000 Packaging Configuration Groups**~~	Removed Packaging Configuration Groups for homogeneous solids and soils/gravels because HSGSA is not required to resolve assignment of EPA hazardous waste numbers for homogeneous solids and soils/gravels. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
Table B1-8	~~No layers of confinement, filtered inner lid~~ • ~~No inner bags, no liner bags (bounding case)~~	Removed Packaging Configuration Groups for homogeneous solids and soils/gravels. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
Table B1-8	~~1 inner bag~~ • ~~1 filtered inner bag~~ • ~~1 liner bag (bounding case)~~ • ~~1 filtered liner bag~~	Removed Packaging Configuration Groups for homogeneous solids and soils/gravels. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
Table B1-8	~~1 inner bag, 1 liner bag~~ • ~~1 filtered inner bag, 1 filtered liner bag~~ • ~~2 inner bags~~ • ~~2 filtered inner bags~~ • ~~2 liner bags (bounding case)~~ • ~~2 filtered liner bags~~	Removed Packaging Configuration Groups for homogeneous solids and soils/gravels. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.

Section	Change	Explanation of Change
Table B1-8	• ~~No layers of confinement inside a pipe component~~ • ~~1 filtered inner bag, 1 filtered metal can inside a pipe component~~ • ~~2 inner bags inside a pipe component~~ • ~~2 filtered inner bags inside a pipe component~~ • ~~2 filtered inner bags, 1 filtered metal can inside a pipe component~~ • ~~2 inner bags, 1 filtered metal can inside a pipe component (bounding case)~~	Removed Packaging Configuration Groups for homogeneous solids and soils/gravels. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
Table B1-8	~~No layers of confinement~~ ~~1 SWB liner bag (bounding case)~~	Removed Packaging Configuration Groups for homogeneous solids and soils/gravels.
Table B1-8	~~any combination of inner and/or liner bags that is less than or equal to 6~~ • ~~5 inner bags, 1 SWB liner bag (bounding case)~~	Removed Packaging Configuration Groups for homogeneous solids and soils/gravels. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
Table B1-8	~~No inner bags, no liner bags, no rigid liner, filtered inner lid (bounding case)~~[~~b~~] • ~~No inner bags, no liner bags, no rigid liner~~	Removed Packaging Configuration Groups for homogeneous solids and soils/gravels. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
Table B1-8	~~4 inner bags and 2 liner bags, no rigid liner, filtered inner lid (bounding case)~~[~~b~~]	Removed Packaging Configuration Groups for homogeneous solids and soils/gravels. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
B1-9	If the rigid liner vent hole diameter for a container is undocumented during packaging ~~(Attachment B, Section B-3(d)1)~~, repackaging ~~(Attachment B, Section B-3(d)1)~~, and/or venting (Section B1-1a[~~6~~4][ii]), that container must use a DAC for a rigid liner vent holer diameter of 0.30 in.	Changed footnote reference to correct table citation.
Table B1-10	Deleted entire Table B1-10	Removed DAC requirements per packaging group for homogeneous solids and soils/gravels because HSGSA is not required to resolve assignment of EPA hazardous waste numbers for homogeneous solids and soils/gravels. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.

Section	Change	Explanation of Change
Table B1-10	Deleted all footnotes associated with Table B1-10	Removed DAC requirements per packaging group for homogeneous solids and soils/gravels. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR.
Figure B1-7	~~Figure B1-7~~ ~~Overall Programmatic Approach to Visual Examination~~	This figure conveyed the Permittees method for verifying the accuracy of radiography performed by generator/storage sites and is no longer applicable. The justification for this change is provided in Sections 1.2.1. and 1.2.2. of the revised PMR